Introduction

Managing Global Catastrophic Risks in the 21st Century: A Global Governance Perspective

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Facing a Multiplicity of Global Risks

In late October of 2022, the UN Environment Programme (2022) published its annual emissions gap report, entitled 'The Closing Window', a reference to the report's main conclusion, namely that there is 'no credible pathway to 1.5°C in place'. The failure to reduce carbon emissions suggested that the only way to limit the most catastrophic impacts of the climate crisis was a 'rapid transformation of societies'. The report's stark conclusion was based on an analysis of CO₂ cuts pledged by countries and the reductions needed to limit the rise in global temperatures to 1.5°C, the agreed target set in Paris in 2015. Pointing out that progress had been 'woefully inadequate' and that even if current pledges were delivered fully by 2030, global temperatures would still rise by about 2.5°C, the report noted that a rise of 1°C had already been associated with a range of climate calamities across the planet.

More recently, the March 2023 UN Intergovernmental Panel on Climate Change (IPCC 2023) 'Synthesis Report' made similar points: climate change is a threat to human well-being and planetary health. Human activities have unequivocally caused global warming, with weather and climate extremes causing adverse impacts, losses and damages to nature and people. Climatic and non-climatic risks will increasingly interact, creating compound and cascading risks. Some future changes are unavoidable but can be limited by deep, rapid and sustained global greenhouse gas emissions reduction in this decade. There is a rapidly closing window of opportunity to secure a liveable and sustainable future for all. These reports are part of a well-established pattern in recent years where different teams of experts issue increasingly alarming reports on the lack of progress made in establishing a viable path to zero emissions by 2050 and the corresponding catastrophic outcomes that this failure is likely to entail, politicians express concern about such outcomes and no substantive actions are taken to confront the climate emergency until the next report is published.¹

In a February 6, 2023, briefing to the General Assembly on priorities for 2023, UN Secretary-General António Guterres warned about

a confluence of challenges unlike any other in our lifetimes. Wars grind on. The climate crisis burns on. Extreme wealth and extreme poverty rage on. The gulf between the haves and have nots is cleaving societies, countries and our wider world. Epic geopolitical divisions are undermining global solidarity and trust. This path is a dead end.

Indeed, climate change is not the only global risk we face. The last several decades have witnessed an unravelling of our nuclear order. Considerable progress was made by the United States and Russia at the end of the Cold War in nuclear arms reductions. However, in late 2021, the United States decided to withdraw from the Anti-Ballistic Missile (ABM) Treaty, and this was soon followed by the announcement in February of 2023 that Russia would suspend participation in the New Start Treaty, the last remaining nuclear arms control agreement in effect. Furthermore, contrary to the letter and the spirit of Article VI in the Non-Proliferation Treaty (NPT), not only are countries not pursuing 'negotiations in good faith' aimed at the 'cessation of the arms race' leading to ultimate nuclear disarmament but, instead, the nuclear powers are modernising and expanding their nuclear arsenals, spending some \$82.4 billion in 2021 alone (ICAN 2022) in doing so, at a time of rising geopolitical tensions among the global nuclear powers.

In 2020–21, COVID-19 delivered the largest shock to the global economy since the Great Depression of the early 1930s. The impact was highly destabilising and global in scope, and beyond the nearly 7 million fatalities worldwide, perhaps no statistic captured more eloquently its welfare costs than that for the first time in three decades, in 2020, we saw a sharp increase in the number of people classified by World Bank as 'extremely poor'—about 100 million people joined the ranks of the very poor, a reversal which, in conjunction with the multiple ramifications of the war in Ukraine, has placed out of reach achievement of the first Sustainable Development Goal, the elimination of extreme poverty by 2030.

The pandemic, according to World Bank (The World Bank Group 2022), also caused the largest increase in global inequality since the end of World War II, with the bottom 40 per cent of the income distribution suffering a larger shock and recovering more slowly than the top 60 per cent. This is a major concern because of the negative connection between increases in income inequality on the one hand and political stability and the resilience of democratic institutions of governance on the other. Income inequality has ceased to be merely an economic problem amenable to be corrected by better public policies but has mutated into a social and political problem which risks undermining the stability of our social and political order and the very basis of democracy. These crises have raised multiple questions about our economic system, its resilience to shocks and, more generally, whether it is on a sustainable path.

Against the chaos and destruction of World War II—the nations of the world came together in 1945 and adopted the UN Charter (United Nations 1945), a noble set of principles that was supposed to inaugurate a new era in international cooperation, to bring about peace and security, thereby creating a solid foundation for economic and social development. The world entered a period of rapid economic growth in the following decades which contributed to a remarkable improvement in various social and economic indicators—a 38 per cent increase in average life expectancy since 1960, a sharp reduction in infant mortality and illiteracy and the incidence of extreme poverty (despite the recent setbacks noted earlier). But the very economic growth which made these achievements possible, and which was accompanied by a remarkable process of integration and growing interdependence, also contributed to the emergence of environmental constraints on the scale of human activity, rising income inequality and persistent poverty and conflict. COVID-19 was a manifestation of one aspect of a whole range of global catastrophic risks which we now confront and which we need to address in a more proactive way, starting with the implications of accelerating climate change. We have to give serious thought to the kinds of global institutional arrangements which we need to have in place to empower us to deal with the looming crises that are ahead of us and which have the potential to destabilise not only the global economy but our social and political order.

No attempt is made here to provide a comprehensive list of the various global catastrophic risks we currently face. Some are the direct result of human actions, such as climate change and the development of weapons of mass destruction (WMD) and other malignant uses of technology and know-how; others are associated with natural catastrophes which, in some cases (e.g., pandemics), may reflect some element of human action and/or priorities, such as the economic growth imperative in our economic system which demands the constant expansion of human habitats to provide for food, housing, energy, water, and other infrastructures to a rapidly expanding human population, exposing humanity to previously sheltered animal species that carry viruses against which we have no natural immunity. In a highly integrated world, these risks and their manifestations will have spillover effects and interact, sometimes in dangerous ways, with other elements of our complex systems.

Two examples will suffice. In 2008–09, inadequate regulation of the 'shadow' banking system in the United States precipitated a massive global financial crisis, with widespread repercussions across the world for output and employment. Governments responded in multiple ways to mitigate the effects of the crisis and to prevent another Great Depression. While many of these interventions were ultimately successful, they involved a substantial accumulation of public debt. This process would be repeated a decade later following the onset of COVID-19, drastically reducing the 'fiscal space' available to governments during the next crisis. Along the way, we discovered that we have a fully integrated global financial system but no global rule of law.

The war in Ukraine led to sharply higher food and fertiliser prices, reflecting the importance of Russia and Ukraine as producers of cereals, seed oils and energy. In conjunction with supply chain disruptions and the gradual return of economic activity after the pandemic-induced lockdowns, the global economy entered a period of high inflation with the associated deleterious effect on incomes and standards of living, particularly for the more vulnerable groups in society across the world.

The point here is rather that we are facing numerous crises across multiple fronts, and these are sharply straining our human institutions and raising fundamental questions about our increasing inability to find effective ways to cooperate in multilateral settings at a time when the crises that we confront are global in nature and do not admit solutions outside of a framework of much stronger international cooperation.

Historical Parallels

The last time that there was a serious global effort to rethink the institutional underpinnings of international cooperation was during World War II. The chaos and destruction which resulted in the death of millions led to the birth of the United Nations and the adoption of the UN Charter at the San Francisco conference in 1945. The previous threeyear period had witnessed an intense debate within the Allied nations pursuing the war against Nazi Germany and its allies as to the nature and scope of the organisation being created. Some leading intellectuals—Grenville Clark, Albert Einstein, Bertrand Russell, and many others—thought that the huge human toll associated with the war created a unique opportunity to bring into being a supranational organisation that would be empowered not only to deliver peace and security but also to promote social and

economic development at a time when vast segments of the world's population lived in abject poverty and in appalling conditions. In this ambitious conception of the organisation, the idea was to create a legislative body that would have the ability to pass certain laws that would be binding on its members. Those working on the early stages of the draft UN Charter sought inspiration in the 1787 U.S. Constitutional Convention, which created the United States of America, a federal republic in which the central government would be granted the monopoly on the use of force and other supporting institutions were created to establish a framework for effective and peaceful governance.

But that vision did not gain the support of the major powers that led the effort to establish the United Nations. Instead, to prevent creating an organisation with the same flaws as the League of Nations, an effort was made to embed within the UN Charter clauses that would allow, at least in theory, for the future strengthening of mechanisms of international cooperation as circumstances evolved.

We will come back later in this chapter to the role of the United Nations in coming years in helping us address many of the global challenges that we currently face. Although the UN Charter was an important step forward against the background of the disruptions and slaughter brought about by global war, for a variety of reasons, the organisation today is greatly challenged in its efforts to become a problem-solving organisation. Inadequately resourced, saddled with an increasingly dysfunctional Security Council because of the veto power granted to its permanent members, operating in an environment of increasing tensions (not to say contradictions) between the demands of national sovereignty on the one hand and the growing recognition that solutions to global problems will require concerted action at the international level on the other, we are nevertheless of the view that the United Nations could play a vital role in the future in catalysing a quantum leap in a major strengthening of the institutions and mechanisms which currently are at the basis of how nation states cooperate across international borders.

Whatever flaws the United Nations may have been born with in the 1940s, the fact remains that rapid scientific and technological change, the expansion of international trade and investment and the economy, major improvements in economic and social indicators—as noted earlier—have radically changed the context in which international cooperation takes place. In the section that follows, we will argue that in a number of areas, it is possible, within our existing institutional framework for global cooperation, to do more and to do so more effectively to address in meaningful ways the global catastrophic risks that cast a shadow over humankind's future. This is a vast subject; we will focus on a handful of areas, including climate change mitigation, poverty and inequality and issues of peace and security.

Managing Key Risks

Climate Change

A frustrating feature of the debate about what to do about accelerating climate change is that we are not hampered by the lack of knowledge.² We have known for several decades, as recently noted by William Nordhaus (2020), that although there is broad recognition that climate change is the most important environmental challenge facing the world today, governments have continued to tackle the problem with a deeply flawed architecture that relies on uncoordinated, voluntary arrangements which encourage free-riding under international climate change agreements such as the (lapsed) Kyoto Protocol and

the more recent 2015 Paris agreement. With a perverse incentive structure embedded in such treaties, 'the global effort to curb climate change is sure to fail', Nordhaus suggested. Using a baseline of 2019, various studies have shown that global emissions would need to drop by about 3-3.5 per cent annually through 2030 to limit warming to the 1.5-degree threshold. There is thus growing recognition that without major mitigation of greenhouse gas (GHG) emissions, global temperatures will be on a rapidly ascending trajectory and rise above 3°C above preindustrial levels by the end of this century.

Given the associated damage to the global economy and its supporting ecosystems and to the natural world more generally as a result of rising sea levels, biodiversity loss and extreme weather events, there has been increasing focus in recent years on identifying the most effective policies that might facilitate climate change mitigation. There is broad consensus among climate scientists and economists that there is a mixture of fiscal tools and regulatory policies that will make it costlier to emit GHGs and thus provide the types of incentives for businesses and individuals to choose to conserve energy and/or to switch to more environmentally friendly (greener) sources. Additionally, such tools could also raise enough revenues which could be deployed to offset the impact of any undesirable distributional side effects and to fund other efforts aimed at mitigation and adaptation.

It is beyond the scope of this chapter to lay out in detail the elements of such a policy package; our point here is that its components are well known and amenable to concerted international action. It involves a far more aggressive use of carbon taxes, about which the IMF (2019) says that they are 'the most powerful and efficient' tool among the 'mitigation strategies to reduce fossil fuel CO, emissions'. It also entails phasing out energy subsidies which are astronomical in scale. The latest IMF estimates (for coal, oil, electricity, natural gas in 2021, reflecting also the environmental damage associated with global warming, pollution, traffic congestion, premature mortality) puts them at US\$5.9 trillion (about 6 per cent of world GDP), a full 85 per cent of which are accounted for by coal and oil.

Anchored in the operations of the price system, carbon taxes tend to have an immediate impact on energy use; as the price of coal and other fossil fuels rises, the burden of the tax is largely passed on to energy users. Furthermore, carbon taxes create the opportunity for a more predictable energy pricing regime, which is important for creating a more stable system of incentives for the development of alternative non-fossil fuel sources of energy. Carbon taxes also tend to be relatively easy to implement since they can be integrated into existing fossil fuel taxation systems or other fiscal regimes for extractive industries.

Beyond the immediate effects of discouraging excessive fossil fuel use and incentivising the transition to cleaner energy alternatives, the IMF (2019) estimates that the revenue collected from such a tax would be substantial, some 1.6 per cent of GDP on an annual basis by 2030, on average, for the G20 countries. In some countries—Russia, Saudi Arabia, South Africa, India, China—the revenue impact would be much larger, ranging between 2.5 to 4.5 per cent of GDP, thereby releasing potentially vast resources for promoting other socially and economically desirable objectives.

The substantial revenues collected through a carbon tax could be redeployed to improve economic efficiency, enhance political acceptability of mitigation measures and promote other socially and economically desirable objectives. Revenue resources could be deployed to accelerate environmental investments in clean energy infrastructure, with potentially important job-creation implications—a crucial consideration given the concern about the job implications of AI (artificial intelligence) and other technological

innovations. In his recent contribution to the climate change debate *How to Avoid a Climate Disaster*, Bill Gates (2021) highlights the role of technological and scientific innovation as a vital component of climate change mitigation and hence the need to substantially boost investment in R&D (research and development) on energy, to match levels seen in other industries, such as the electronics and pharmaceutical industries. Financing the transition to a renewable energy economy will also require the development of imaginative mechanisms to raise the necessary resources, such as, for instance, taxes on financial sector transactions which, given the rapid size of the global financial system in recent decades, have the potential to raise large sums at even extremely low levels of taxation (Lopez-Claros, Dahl and Groff 2020: ch. 12).

These policies require broad-based international cooperation. There are already well-established for within the UN system to deliberate on vital questions of implementation. The IMF and World Bank, the two organisations established at the United Nations Monetary and Financial Conference in 1944—otherwise known as the Bretton Woods Conference—have nearly universal membership, with 189 of the UN's 193 member countries having a voice in its deliberations. True, the Bretton Woods institutions face governance challenges of their own—linked to underrepresentation in the distribution of power within its decision-making bodies of rapidly growing economies such as China and other emerging market giants, and there are questions about the adequacy of their resources to fully fulfil their mandates in times of crises—but these weaknesses are not crippling and a great deal could be accomplished to empower them to play a more central role in helping to manage the transition to a low-carbon global economy. The challenge, as noted earlier, is not lack of knowledge or expertise or a limited understanding of the instruments needed to tackle climate change in an effective manner, but it is one of political will and leadership, particularly among the dozen or so countries in the world that today account for the lion's share of global emissions.

The aforementioned is not to suggest that there is no place to substantially improve global environmental governance, and the chapter by Dahl in this volume argues in favour and presents a coherent set of proposals to precisely do that. Given the scale of the climate emergency, there is a great deal that can be done, as noted earlier, to mitigate the worst aspects of the looming calamities coming our way, all of them involving strengthening aspects of international cooperation.

Poverty and Inequality

In assessing the risk factors that threaten our future, it is customary to conjure images of WMDs and other man-made catastrophes. In *The Fate of the Earth*, Jonathan Schell (1982) titled the first chapter of this highly influential book 'A Republic of Insects and Grass' because that would be likely the legacy of an exchange of nuclear weapons between the two reigning global nuclear powers in the early 1980s. It is not customary to think of extreme poverty and inequality as potentially catastrophic phenomena, but we will here argue otherwise.

One narrative that is often put forward by development economists is that great progress has been made in recent decades in reducing the incidence of extreme poverty, and the data indeed show this. Using World Bank's poverty line of \$2.15 income per day, the number of extremely poor people has been reduced from close to 2 billion in 1990 to something like 700 million people in 2022. However, these data require two important qualifications. The first is that much of this reduction is accounted for by high economic

growth rates in China and, to a lesser extent, India. Considerably less progress has been made in sub-Saharan Africa, which remains the largest pocket of extreme poverty in the world.

The second is that the extreme poverty line used by World Bank is exceptionally austere, with people in this group characterised by a very precarious existence, high incidence of malnutrition, illiteracy, lack of access to basic infrastructures such as running water and electricity, to say nothing of other social protections, such as health care. Indeed, it is not at all an exaggeration to characterise this level of poverty as being degrading and demoralising for those affected. Using a poverty line of \$6.85 income per day which the American economist Nancy Birdsall (2014) suggests still leaves people 'struggling' to make ends meet—a full 47 per cent of the world's population is poor today. Widespread poverty and lack of access to nutrition and basic services and widening income disparities are not only detrimental to the well-being of a large segment of the world's population, but they are also a threat to the security and stability of the world. The reasons why are many, and we take up some now.

One important lesson to come out of the COVID-19 pandemic is to highlight the extent to which coronaviruses and similar pathogens pose risks to the entire human species. Closing borders during the pandemic did not in general guarantee the elimination of the risk of contagion, in addition to being an inefficient measure, given the high degrees of integration of the world's economies. A more realistic solution was to expand access to health and basic social protections to a much larger percentage of the world's population, including the very poor. Not only would this demonstrate solidarity but also minimise the systemic risk from unprotected populations: vulnerable people must be protected to protect everyone.

There is a moral case for better social protection, even if this means a fundamental rethinking of the structure of national budgets. There is no need to appeal here to a universal ethic as an end in itself. We live in a world in which a completely accidental event—the nationality of our parents—plays a fundamental role in the prospects we face as human beings. If our parents are Norwegian, we will have enormous opportunities to develop our inherent capabilities. For in Norway, it is highly probable not only that we will safely reach the age of 5, be well fed and educated, and have access to modern medical and health facilities, but a benevolent state will also provide for us in our old age since in Norway economic policies have incorporated the concept of sustainability in their design, including in management of public finances and the responsibilities of the state to future generations.

If, however, we are born in any of the dozens of low-income countries, we may not survive to the age of 5, and if we do, we are more likely to become part of the 800 million people in the world who suffer from malnutrition and the development of whose talents may be stunted not only by the lack of good nutrition during the early stages of the development of our brains but also by the absence of quality education. And, of course, on average, we may live to the age of 59, rather than the 79–80 seen in some of the more successful high-income countries. Even if one characterises this situation as 'a fact of life', it is a sad commentary on the current state of our world, increasingly under strain from the impact of various forms of inequality. The fact is that this is profoundly unfair; there is no ethical framework in which this state of affairs could be characterised as being consistent with elemental notions of justice.

Strengthening the underpinnings of our systems of social protection—whether through the gradual introduction of something like a universal basic income or by other schemes that are seen to be affordable, particularly in those countries with large poor populations—would go a long way to helping erase extreme poverty, malnutrition, illiteracy, and gender discrimination in an age of plenty. In the age of COVID-19 and future pandemics, it could actually be the socially optimal path, affording greater protection everywhere. This may well be one of the more enduring lessons from the calamities of COVID-19.

This also raises the question of whether our notions of national security should not be reexamined in a fundamental way. In the minds of the majority, the concept of national security evokes images of well-equipped military establishments ready to defend national interests against possible real or imaginary attacks by potential adversaries while absorbing a significant share of national budgets. But COVID-19 has shown us that, in the midst of a pandemic, the most sophisticated and destructive weapons are totally useless. Perhaps national security will now have to be seen from the perspective of human well-being, from the ability of governments to have well-prepared health infrastructures, a clean environment, a social safety net, and the resources to continue to educate children and young people in preparation for an increasingly complex world. These questions are addressed more fully in the chapters by Kaldor and Williams included in this volume.

Economists have known at least since the 1980s about the connection between income inequality and political stability. A particularly persuasive study is Muller (1988), which established two important results. First, democracies with highly inegalitarian distributions of income had a much higher probability of breakdown than those with a more egalitarian income distribution. Second, the longer democratic institutions are in place, the higher the likelihood that there will be a gradual reduction in income inequality.

There are several problems with widening income gaps. A first obvious one, to paraphrase David Landes (1990), is that the larger the gap, the more difficult it is to make the jump. Taiwan, Singapore and Korea did it, and Chile was admitted to the OECD in 2010—but these cases of upward mobility are few and far between. Landes thinks that an important constraint is knowledge and know-how, which cannot be easily acquired. In other countries, the story of training and higher education has often been, as noted by Landes (1990: 9), 'the permanent loss of talent' or 'brain drain'.

Being far behind creates a difficult context for the implementation of sound policies. The populations of poor countries can readily and accurately estimate—because of the power of communications technologies—how far back they are vis-à-vis the rest of the world, particularly the rich economies of the industrial world. This is likely to create unrealistic expectations of catchup and, in turn, force governments to favour a populist path instead of the deliberate, gradual and, at times, difficult path chosen by the few successful cases of upward mobility. When the gap is so wide that the possibility of catching up within a generation or two is no more than a pipe dream, governments may find it difficult to engage the public in the pursuit of cautious, coherent policies.

'Lateness is the parent of bad government' is how Landes (1990: 9) puts it, where he uses the noun 'late' to mean late entry into the development process, captured by a low per capita income. In his book, *The Bottom Billion*, Paul Collier (2007) highlights some of the difficulties associated with a segmentation of the world into two broad regions, one characterised by either high income or at least positive economic growth and another where some 60 countries with a combined population in excess of 1 billion are not only falling behind but falling apart, becoming exporters of 'violence and people instead of goods and services' (p. 12), thereby beginning to pose a security threat to the rest of the world. According to Collier,

development is about giving hope to ordinary people that their children will live in a society that has caught up with the rest of the world. Take that hope away and the smart people will use their energies not to develop their society but to escape from it.

Widening income gaps between countries have, therefore, also played a role in the recent evolution of migratory flows. According to Clemens, Montenegro and Pritchett (2016), workers migrating to the United States from a country in the 80th percentile in income levels can raise their real earnings by over six times, equivalent to an absolute gain in excess of \$15,000 per year. Beyond the inevitable pressures on resources, continued population growth in the next couple of decades will lead to a broad range of challenges for governments, businesses and civil society. For instance, in the Middle East and North Africa, high fertility rates and one of the highest rates of population growth in the world will put enormous strains on labour markets. These countries already suffer from the highest rates of unemployment in the world. Simply to prevent these rates from rising further, it will be necessary to create dozens of millions of new jobs within the next decade and a half. The failure to do so has led to major political and social instability in the region.3

Powerful demonstration effects are clearly at work: the spread of instant communication and the Internet have led billions of people in China, India, Latin America, Africa and other parts of the developing world to aspire to lifestyles and patterns of consumption similar to those prevailing in the industrial world. Where conditions are not in place in countries to deliver on such aspirations within a reasonable time span, people will surely seek opportunities elsewhere, and taking their skills (such as they are) to a richer country will continue to be seen as a way to escape poverty. Furthermore, these populations are often unwilling to postpone such aspirations and increasingly expect their governments to deliver rising levels of prosperity, implicitly pushing for a more equitable distribution of the world's resources.

Peace, Security and the Role of the United Nations

United Nations Secretary-General António Guterres (2021), at the very end of the Summary of his 'Our Common Agenda' report, states that he

will ask a High-Level Advisory Board, led by former Heads of State and Government, to identify global public goods and other areas of common interest where governance improvements are most needed, and to propose options for how this could be achieved.

Recently, his proposed Summit of the Future, 'to forge a new global consensus on what our future should look like, and what we can do today to secure it', has been announced for 2024.

While there may be differences of emphasis, most surveys of public opinion suggest that there is already a broadly held international consensus on what kind of future we want. It is a future in which ours and future generations will be free from the calamities and dislocations associated with accelerating climate change, in which we will have found enduring ways to reduce the tensions and geopolitical risks associated with destructive nationalisms which have caused so much suffering and conflict over the past century. Indeed, to put behind us forever the fear of a nuclear holocaust. It is a future in which the economic advancements we have made are shared more equitably across all populations; in which social cohesion is strengthened, human rights are fulfilled; and in which we have finally eradicated the degrading poverty that blights the lives of hundreds of millions. And it is perhaps a future in which our concepts of security will have evolved from an undue focus on military preparedness and the buildup of weapons to one in which we conceive of security as being fundamentally about human welfare and the need to formulate public policies in ways that contribute to improving human well-being. Indeed, the UN 2030 Agenda and supporting Sustainable Development Goals already provide a comprehensive vision of what that future should look like.

In Global Governance and the Emergence of Global Institutions for the 21st Century (Lopez-Claros, Dahl and Groff 2020), the authors present a fairly comprehensive overview of the kinds of reforms which would significantly enhance the capacity of the United Nations to evolve into a problem-solving organisation at the centre of multilateral efforts to identify, understand and address more effectively the myriad transboundary challenges that we currently confront. The reform agenda laid out is extensive, and here we will address four issues that, in some form or other, are vital to improving the organisation's effectiveness and putting it at the centre of improved international cooperation. These pertain to Security Council reform, strengthening the legitimacy of the General Assembly, the creation of a World Parliamentary Assembly, and improving the United Nations's funding mechanisms.

Security Council Reform

In an earlier article, some of the history of the UN veto was reviewed and why it was so poorly received by many of the delegations assembled at the San Francisco conference in 1945 when the UN Charter was adopted (Lopez-Claros 2022). Earlier that year, at the Yalta conference, the Dutch delegation had warned that giving the veto power in the Security Council to a select few countries would make the organisation largely useless in disputes between great powers or in conflicts involving a close ally of a great power. There was something unwholesome about giving the veto power to countries which were themselves parties to a dispute. Cord Meyer (1945), a member of the U.S. delegation in San Francisco, would later comment on the weak moral grounds implicit in the inclusion in the Charter of a principle which would create a situation where 'a major power can violate every principle and purpose set forth in the Charter and yet remain a member of the Organization by the lawful use of the veto power expressly granted to it'.

Mexico and eight other Latin American countries assembled in Chapultepec at the Inter-American Conference on Problems of War and Peace held in February/March of 1945 strongly objected to the veto. Australian Judge Herbert Evatt—later president of the General Assembly in 1948—and New Zealand Prime Minister Peter Fraser likewise expressed dismay at the inclusion of the veto and led a group of 17 nations in their opposition to it during the San Francisco conference.

It was in response to their strongly voiced opposition that the delegates assembled in San Francisco agreed to include in the Charter Article 109, stating that

[a] General Conference of the Members of the United Nations for the purposes of reviewing the present Charter may be held at a date and place to be fixed by a two-thirds vote of the members of the General Assembly and by a vote of any nine members of the Security Council.

While the Article's second paragraph went on to state that any proposed amendments to the Charter coming out of that Conference to be subsequently ratified by members would still require the consent of the veto-wielding countries, the Article opened the door for a future consideration of the appropriateness of the Charter in light of changes which might have taken place since its adoption and ratification as agreed in San Francisco.

Against this background, in his own assessment of the importance of Article 109, Georg Witschel, a renowned German diplomat, commented that 'it was a major factor in overcoming the resistance of many small and medium-sized States to the "Yalta formula" stating the right to veto in San Francisco. The prospect of a review conference in the foreseeable future, when the cards could be reshuffled, gave them consolation and hope'.

Article 109 was not only a way to placate the many members who were upset at being presented with a *fait accompli*, with the key elements of the Charter having been earlier agreed to by Roosevelt, Churchill and Stalin. It was also a way to address the sense, widespread among those who had followed closely the debate in the period 1942–45 about the kind of UN which should be created, namely that the UN Charter, as conceived, was an inadequate response to the devastation of World War II and its 60 million casualties. In the view of many, the organisation would fail to live up to the noble ideals in the areas of peace and security identified in the Charter's Preamble and spelled out in its numerous articles. In the final vote, once the United States and the Soviet Union made it clear that without the inclusion of the veto there would be no United Nations Charter, 15 nations abstained, and two (Colombia and Cuba) voted against it, out of 51 signatories.

The Article 109 conference, expected to take place within a decade from the time of ratification of the Charter has never taken place. As with other elements of the Charter, it remains a dead letter, a victim of the onset of the Cold War and the general sense of inertia and paralysis that has been a permanent feature of UN reform efforts, to say nothing of decision-making within the Security Council, which remains largely ineffective at a time when a range of global catastrophic risks threaten our future, risks which reflect problems the solutions to which are not possible outside a framework of much stronger international cooperation.

It is often argued that the permanent members of the Security Council would never willingly give up the veto, no matter that it has turned the body into a fully dysfunctional institution within the UN system and led to a gradual transfer of the locus of power and influence onto the General Assembly. In our view, the veto in recent decades has become a greatly devalued privilege, more an ancient symbol of power and the political arrangements that were put in place at the end of World War II rather than an instrument to wield real positive power. In the aftermath of Russia's invasion of Ukraine on February 24, 2022, Russia vetoed a Security Council resolution condemning it. This did not prevent the General Assembly from taking up a resolution of its own and on March 2, 2022, by a vote of 141 to 5, issued a resolution in which it deplored 'in the strongest terms the aggression by (Russia) against Ukraine' and demanded it 'immediately cease its use of force against Ukraine'. The five countries that opposed the resolution were Russia, Belarus, North Korea, Syria, and Eritrea. But, rather more importantly, Russia's veto did not protect it from NATO members and other countries providing military and economic assistance to Ukraine to allow the country to defend itself against Russian aggression. So, its veto was not worth very much beyond the symbolism of saying, 'Nyet!' The UN Charter (1945) gives the Security Council the ability to pass binding resolutions with the power of international law. But since the UN never got around to operationalising Article 43, its resolutions are often ignored. So, one can expect that with the value of the veto greatly diminished in effective terms, we will see the UN increasingly sidelined in times of conflict, with real power and influence moving to other centres and the UN performing the role of helpless bystander, which was definitely not the intentions of its founders.

There is no reason why the Security Council could not be reorganised in a manner similar to the governance structures that were adopted by the Bretton Woods institutions in 1944. Within their governing councils (or Executive Boards, as they are called) member countries operate under a system of weighted voting in which every member has a vote and a voice, and no member enjoys a veto. This system has served them well. Particularly important decisions may require a higher than 50 per cent voting share; in practice, members have opted for consensual decision-making, rather than the paralysing obstructionism that characterises the Security Council.⁴

Strengthening the Legitimacy of the General Assembly

One issue that was intensely debated in the period leading to the adoption of the UN Charter was the particular governance mechanisms that would underpin the operations of the General Assembly. While the United States, the United Kingdom and the Soviet Union had no problems the previous year in establishing a system of weighted voting for the Bretton Woods organisations linked to objective metrics of economic size, trade flows and the like, they were not ready to apply the same principle in respect of the General Assembly in 1945, which was established under the principle of one country-one vote, suggesting an explicit desire on the part of the larger powers to place the locus of power within the Security Council, where they enjoyed the veto.

Also debated was the issue of how the Assembly's members would be chosen. In an open letter to the General Assembly, Albert Einstein (1947) said, '[T]he method of representation at the UN should be considerably modified ... the moral authority of the UN would be considerably enhanced if the delegates were elected directly by the people', instead of being diplomats in most cases representing the party in power. Einstein thought that the democratic legitimacy of the UN was a vital principle and that it was necessary to have a firmer linkage between the organisation and the peoples it was meant to serve. In this respect, he was strongly supportive of Clark's call to give the United Nations General Assembly, under a system of weighted voting, narrowly defined powers on matters pertaining to peace and security, the heart of the UN Charter.

Bertrand Russell (1946) was another active participant in those debates. Not only did he collaborate closely with Einstein, but with his logician's mind, had said that 'wars will cease when, and only when, it becomes evident beyond reasonable doubt that in any war the aggressor will be defeated'. This was his way of suggesting that Article 43 of the Charter which calls for 'armed forces, assistance and facilities to be made available to the Security Council for the purpose of maintaining international peace and security' would need to be given operational meaning on the ground, by creating the instrumentality to allow the United Nations to deliver on its peace and security mandate.

So, as currently constituted, India, with a population of close to 1.4 billion people, has the same voting power as Nauru, with a population of about 13,000. Switzerland's contribution to the UN budget (1.134 per cent of the total and itself the result of some fiendishly complicated internal formulas) exceeds the cumulative contributions of the 120 countries with the smallest contributions. In *World Peace Through World Law*, Grenville Clark and Louis Sohn (1966) argued for a system linking voting power to population shares and a gradual shift to direct election of General Assembly members by popular vote in their respective countries.

Lopez-Claros, Dahl and Groff (2020) put forward a proposal which allocates voting power within the General Assembly on the basis of three factors all weighted equally: a country's world population share, its share of world GDP and a membership share which would be equal for all 193 UN members, and which has the effect of boosting the power and voice of the smaller countries. Using 2021 data, one can see in Table 0.1 the results of this exercise for a group of 30 countries, including the five permanent members of the

Table 0.1 Updated United Nations General Assembly voting shares under a modified Schwartzberg proposal using 2021 data

Country	Baseline weights ^b	GDP share in per cent: C	Population in per cent: P	Membership share in per cent: M	W: Share ^c in per cent:
Top 20 contribute	orsa				
United States of America	8.283	20.405	4.229	0.518	8.384
China	11.993	18.571	17.859	0.518	12.316
Japan	2.483	4.022	1.578	0.518	2.040
Germany	1.871	3.640	1.056	0.518	1.738
United Kingdom	1.406	2.832	0.859	0.518	1.403
France	1.393	2.500	0.834	0.518	1.284
Italy	1.156	1.893	0.749	0.518	1.053
Canada	0.919	1.808	0.498	0.518	0.941
Republic of Korea	0.993	1.721	0.653	0.518	0.964
Spain	0.891	1.362	0.605	0.518	0.829
Australia	0.726	1.352	0.333	0.518	0.734
Brazil	1.967	2.170	2.725	0.518	1.804
Russian Federation	1.680	2.574	1.840	0.518	1.644
Netherlands	0.545	0.865	0.224	0.518	0.536
Mexico	1.316	1.628	1.662	0.518	1.269
Saudi Arabia	0.698	1.081	0.467	0.518	0.689
Switzerland	0.423	0.632	0.111	0.518	0.421
India	7.936	5.360	17.986	0.518	7.955
Sweden	0.399	0.524	0.137	0.518	0.393
Turkey	1.001	1.468	1.098	0.518	1.028
Other countries					
Argentina	0.626	0.681	0.592	0.518	0.597
Indonesia	1.992	1.898	3.514	0.518	1.977
Iran	0.844	1.466	1.096	0.518	1.027
South Africa	0.600	0.501	0.785	0.518	0.601
Nigeria	1.250	0.673	2.814	0.518	1.335
Egypt	0.816	0.706	1.346	0.518	0.856
Pakistan	1.254	0.627	2.933	0.518	1.359
Ghana	0.329	0.101	0.404	0.518	0.341
Lesotho	0.184	0.003	0.027	0.518	0.183

Notes

a Based on assessed contributions to the UN regular budget for the period 2022-24.

b Weights published in Global Governance and the Emergence of Global Institutions for the 21st Century, using 2017 data.

c W = (C + P + M)/3, using 2021 data.

Security Council. China, the United States and India would emerge as the countries with the largest voting power, at 12.316, 8.384, and 7.955 per cent, respectively, for a combined weight among them of 28.655 per cent. An interesting result is that Russia, the United Kingdom and France—the three veto-wielding powers other than the United States and China—all have less than 2 per cent voting power, with Russia the highest among them at 1.644 per cent. So, a sensible allocation of power within a reformed General Assembly, using plausible metrics to determine each country's relative share, allocates a relatively small share for Russia, a country able, through the veto, to derail and paralyse the organisation as it attempts to enforce its mandate to maintain peace and security.

The Role of a World Parliamentary Assembly

The democratic legitimacy of the United Nations matters a great deal for its effectiveness, credibility, and ability to become a problem-solving organisation. Until such time as the community of nations is ready to reform the UN Charter and give the General Assembly the legislative powers and proportional representation necessary, a World Parliamentary Assembly (WPA) could serve as an important advisory body. It could act as a 'second chamber' of sorts to the United Nations General Assembly and would represent the voices of citizens. This approach would ensure more popular representation in UN decision-making and in selecting those to speak on behalf of 'we the peoples' at the United Nations. The WPA would help bridge the democratic legitimacy gap that arises when an organisation's actions can affect people's welfare in tangible ways, but those affected by these decisions have little input in how they are formulated, arrived at, and implemented.

The idea of having a second legislative chamber at the United Nations has existed since the organisation's inception but is, perhaps, even more relevant now given an explosion of international non-governmental organisations that are working on cross-cutting global issues. As an advisory body, the WPA could bring in a fresh perspective on a broad array of unresolved global problems. It would be in a stronger position to promote higher levels of international cooperation because its members would be called upon to see such problems through the lens of humanity's better interests rather than narrow national considerations.

There are multiple paths to the creation of the WPA. Article 22 of the UN Charter permits the General Assembly to create subsidiary organisations as necessary, which could include the WPA. Another approach is creating the WPA via international treaty, a successful method which was most recently used with the 2017 Treaty on the Prohibition of Nuclear Weapons.

The creation of the WPA will require certain initial steps, the first of which must be the engagement of public and governmental stakeholders, many of which have grown disillusioned with the United Nations's effectiveness. Those dissatisfied with the United Nations could be convinced to support the WPA's creation as a step toward increasing the United Nations's transparency and legitimacy. Several international groups have already endorsed such a vision, including the European Parliament and the Pan-African Parliament. Larger states that are generally content with the United Nations's current political order might fear the creation of a second chamber, such as the WPA. To assuage these concerns, the WPA could be initially established as a consultative body to make recommendations without concrete political power.

The WPA could also champion key priority reform items. For example, ensuring that the International Court of Justice and the International Criminal Court are obligatory courts with compulsory jurisdiction for all UN members, advocating for reformed UN financing, designing ambitious and consolidated new disarmament proposals, and so on.

The creation of a WPA and its evolution over time would build more support for a new-and-improved United Nations, make it possible to experiment with different processes and approaches to reform and accumulate valuable experience to eventually support the formal consultations leading to Charter revision. The paper by Strauss and Falk in this volume expands on many of these ideas.

Improving UN Funding Mechanisms

The United Nations has a regular budget which funds the UN Secretariat and its multiple activities, a peacekeeping budget, and a budget that finances the activities of its specialised agencies. These budgets are financed by assessed contributions from members. In the latest assessment, corresponding to the period 2022–24, the United States remains the largest contributor, contributing 22 per cent of the UN budget, followed by China, at 15.254 per cent and Japan at 8.003 per cent as the next two largest contributors.

In addition, there is a separate budget that is funded by voluntary earmarked contributions from some of its wealthier members in support of particular agencies, projects and programmes. Contributions to the UN budget are heavily asymmetric. The top 10 contributors account for 70 per cent of the budget; the top 20 account for 84 per cent of the budget. A number of different proposals for a better funding mechanism for the United Nations have been put forward over the years. We support a proposal based on a fixed proportion of gross national income (GNI). The United Nations would simply assess member contributions at a fixed per cent of their respective GNIs. Total world GNI at market prices in 2021 was US\$ 105 trillion. A relatively modest 0.1 per cent of GNI contribution to the UN budget would generate US\$ 105 billion, a sizeable sum to start with, several times larger than the current regular budget and also much higher than the budget if one uses the most comprehensive measure, including all earmarked contributions and peacekeeping operations.

The main advantage of this system is simplicity and transparency. Every country gets assessed at the same rate; the criteria for burden sharing is crystal clear. Contributions are linked to economic size—as in the current system—but without the need for carveouts, exceptions, floors and ceilings, and discounts and the need to develop 'formulas', often vulnerable to political machinations. Of course, it will remain the case that the lion's share of the resources *spent* by the United Nations will be to the benefit of low-income countries which, on a net basis, would continue to be the direct beneficiaries of UN funding.

Longer term, as already happens within the European Union (EU), the United Nations should be given a reliable source of funding that allows it to plan strategically, contrary to the current system where member countries do not see assessed contributions as a binding obligation of membership and have often used their contributions for coercion and blackmail. EU institutions are funded through formulas that automatically channel to the EU budget, for example, a fixed proportion of VAT and import duty collections in each member country. At a time when it is desirable for the United Nations to play a more central role in mitigating global catastrophic risks, it is essential to give the organisation a reliable revenue source.

Next Steps and the Promise of a Better World

Having a series of world conferences on global institutions is one way to expand the debate on global governance. The aim would be to take up the reforms that need to be urgently implemented to adapt our system of global governance to the needs and the challenges that we now face and which, if unaddressed, could well plunge the world into unprecedented crises and be hugely costly in economic and human terms.

One upcoming opportunity may be the 'Summit of the Future: Multilateral Solutions for a Better Tomorrow' proposed by UN Secretary-General António Guterres to take place in September 2024. He characterised the summit as a 'once-in-a-lifetime opportunity to reinvigorate global action, recommit to fundamental principles, and further develop the frameworks of multilateralism so they are fit for the future' (IISD 2023). Building off the Secretary-General's (2021) report, 'Our Common Agenda', this summit would address more investments in peace and security, support for regional conflict prevention and reduction of strategic risks like nuclear weapons proliferation and cyberwarfare.

Any global conference(s) should include wide participation from civil society stake-holders. In 2015, for example, the United Nations General Assembly adopted a series of Sustainable Development Goals to be reached by 2030, but this achievement reflected an intergovernmental process supported by extensive consultation with, and contributions from, civil society.

A conference is not an end in itself but can serve as a rallying point for both policy-makers and citizens alike and the start of a staged process intended to build momentum and consensus around the sorts of reforms that are needed. Building the institutions that will underpin our system of global governance in the coming decades could well be the most important project of this century. It will require imagination, persistence and confidence that, sooner rather than later, we will need to make the transition to vastly enhanced mechanisms of binding international cooperation if we are to avoid and address untold human suffering and catastrophe.

While not every country may come on board with these efforts, there are an increasing number of governments that are convinced of the need for major changes and reinforcement in multilateral cooperation, largely in the middle range of countries, neither 'great powers' with hegemonic ambitions, nor those struggling to meet basic needs. They can assemble into a like-minded 'coalition of the willing' and not wait for universal acceptance.

A major effort should be directed to bring as many of these governments as possible around to serious consideration of Charter reform. The threat of blockage by veto should not be allowed to stymie informed debate. The aim should be to assemble, gradually, if necessary, the majority of governments around the world with a common vision, ready to take a comprehensive reform agenda forward. The possibility of creating a new organisation to replace the United Nations, if necessary, as a last resort should not be excluded as a viable option in a scenario involving multiple crises across a range of fronts.

Notes

1 In 2020, Bill McKibben (2020: 8) asked, 'Didn't the world leaders who signed the Paris climate accords commit to holding temperature increases to "well below" two degrees Celsius, and as close as possible to 1.5 degrees? They did—in the preamble to the agreement. But then they appended their actual pledges, country by country. When scientists added up all those promises—to cut emissions, to build renewable energy, to save forests—and fed them to a computer,

- it spit out the news that we are headed for about 3.5-degree rise this century'. He then added, 'A three-degree rise in temperatures takes us to a level of global heat no human has ever experienced—you have to wind time back at least to the Pleistocene, three million years ago, before the Ice Ages'.
- 2 This section draws in part from Lopez-Claros (2021).
- 3 In sharp contrast, the populations of countries such as Italy, Japan and others in the industrial world will continue to shrink, a demographic trend which, in turn, will put huge pressures on public finances, as states attempt to cope with growing numbers of pensioners claiming a growing share of budgetary resources.
- 4 See Lopez-Claros, Dahl and Groff (2020: ch. 7) for reform proposals that would turn the Security Council into an Executive Council and give voice to all 193 UN members.

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